Appendix 9.1

Energy Efficiency, Renewable and Low Income Policy

This appendix is a digest of policy statements by the federal and state government about energy efficiency and renewable energy.

A.1 General State Policy: Conservation of Electricity and Energy

> The legislature finds and declares that it is the continuing purpose of state government, consistent with other essential considerations of state policy, to foster wise and efficient energy use and to promote energy self-sufficiency through the use of indigenous and renewable energy sources, consistent with the promotion of reliable energy sources, the general welfare, and the protection of environmental quality. (RCW 43.21F.010; 1975-'76 2nd ex.s., c 108 § 1.)
>
> State policy. It is the policy of the state of Washington that:
>
> (1) The development and use of a diverse array of energy resources with emphasis on renewable energy resources shall be encouraged;
>
> (2) The supply of energy shall be sufficient to insure the health and economic welfare of its citizens;
>
> (3) The development and use of energy resources shall be consistent with the statutory environmental policies of the state;
>
> (4) Energy conservation and elimination of wasteful and uneconomic uses of energy and materials shall be encouraged, and this conservation should include, but is not limited to, resource recovery and materials recycling;
>
> (5) In energy emergency shortage situations, energy requirements to maintain the public health, safety, and welfare shall be given priority in the allocation of energy resources, and citizens and industry shall be assisted in adjusting to the limited availability of energy in order to minimize adverse impacts on their physical, social, and economic well being;
>
> (6) State government shall provide a source of impartial and objective information in order that this energy policy may be enhanced; and
>
> (7) The state energy strategy shall provide primary guidance for implementation of the state's energy policy. (RCW 43.21F.015; 1994 c 207 § 3; 1981 c 295 § 1.)

In 1991, the legislature directed that the state prepare a state energy strategy, and found, ". . . that the state energy strategy presented to the legislature in 1993 was developed by a dedicated and talented committee of hard-working representatives of the industries and people of this state and that the strategy document should serve to guide energy-related policy decisions by the legislature and other entities

within this region." (1994 c 207 §1.) With respect to conservation, the *State Energy Strategy* states that, "All cost-effective conservation and efficiency opportunities should be pursued aggressively in both public and private utility markets. Utility and BPA conservation programs should recognize the importance of vigorous implementation by all parties."

In the chapter governing municipal utilities, the legislature found:

> The conservation of energy in all forms and by every possible means is found and declared to be a public purpose of highest priority. The legislature further finds and declares that all municipal corporations, quasi municipal corporations, and other political subdivisions of the state which are engaged in the generation, sale, or distribution of energy should be granted the authority to develop and carry out programs which will conserve resources, reduce waste, and encourage more efficient use of energy by consumers.
>
> In order to establish the most effective state-wide program for energy conservation, the legislature hereby encourages any company, corporation, or association engaged in selling or furnishing utility services to assist their customers in the acquisition and installation of materials and equipment, for compensation or otherwise, for the conservation or more efficient use of energy. The use of appropriate tree plantings for energy conservation is encouraged as part of these programs. [RCW 35.92.355; 1993 c 204 § 5; 1979 ex.s. c 239 § 1.]

In the public utility district (PUD) laws (RCW 54.16.280) the legislature states:

> Any district is hereby authorized, within limits established by the Constitution of the State of Washington, to assist the owners of structures or equipment in financing the acquisition and installation of materials and equipment, for compensation or otherwise, for conservation or more efficient use of energy.

This language is parallel to that authorizing municipal utilities to finance conservation in customers' structures or facilities. Both statutes were passed in 1989 subsequent to the amendment of Article 8 of the state's Constitution permitting the use of public money and credit for purposes of conservation.

The State Constitution's ban on lending of public credit has been amended three times to provide exceptions for conservation investments. In Article 8, section 10, energy and water conservation assistance, the Constitution currently provides:

> Notwithstanding the provisions of section 7 of this Article, any county, city, town, quasi-municipal corporation, municipal corporation, or political subdivision of the state which is engaged in the sale or distribution of water or energy may, as authorized by the legislature, use public moneys or credit derived from operating revenues from the sale of water or energy to assist

> the owners of structures or equipment in financing the acquisition and installation of materials and equipment for the conservation or more efficient use of water or energy in such structures or equipment. Except as provided in section 7 of this Article, an appropriate charge back shall be made for such extension of public moneys or credit and the same shall be a lien against the structure benefited or a security interest in the equipment benefited. Any financing for energy conservation authorized by this article shall only be used for conservation purposes in existing structures and shall not be used for any purpose which results in a conversion from one energy source to another. (Amendment 86, 1989 Senate Joint Resolution No. 8210, Approved November 7, 1989. See also Amendment 82 (1988 House Joint Resolution No. 4223, p 1552. Approved November 8, 1988) and Amendment 70, (Substitute Senate Joint Resolution No. 120, p 2288. Approved November 6, 1979)).

In a manner parallel with PUDs and municipal utilities, irrigation districts are authorized to use public funds or credit to assist their customers in improving energy efficiency. (RCW 87.03.017)

The preamble to the state energy-related building standards states:

> The legislature finds that using energy efficiently in housing is one of the lowest cost ways to meet consumer demand for energy; that using energy efficiently helps protect citizens of the state from negative impacts due to changes in energy supply and cost; that using energy efficiently will help mitigate negative environmental impacts of energy use and resource development; and that using energy efficiently will help stretch our present energy resources into the future. The legislature further finds that the electricity surplus in the Northwest is dwindling as the population increases and the economy expands, and that the region will eventually need new sources of electricity generation.
>
> It is declared policy of the state of Washington that energy be used efficiently. It is the intent of this act to establish residential building standards that bring about the common use of energy efficient building methods, and to assure that such methods remain economically feasible and affordable to purchasers of newly constructed housing." [1990 c 2 § 1, see RCW 19.27A.015.]

Chapter 39.35 RCW directs the Department of General Administration to consider energy conservation in the design of publicly-owned (state and schools) buildings. It requires life-cycle cost analysis be done for new schools and state buildings and that these analyses include operating costs associated with energy. Further it directs that state agencies and school districts "...shall implement cost-effective

conservation improvements and maintain efficient operation of its facilities in order to minimize energy consumption and related environmental impacts and reduce operating costs". As part of statutory direction to, this section establishes an aggressive program to improve the energy efficiency of state-owned buildings under the Department's jurisdiction. (RCW 43.19.668)

In Washington's Clean Air Act, energy efficiency is identified as one means for achieving improvements in air quality:

> The legislature further recognizes that energy efficiency and energy conservation can help to reduce air pollution and shall therefore be considered when making decisions on air pollution control strategies and projects. (RCW 70.94.011)

Conservation of the energy resources of the state is identified as one of the several purposes of the state's solid waste program. (RCW 70.95.020)

The legislature identifies conservation of energy resources as one of the objectives of the Low-Income Residential Weatherization Program. (RCW 70.164.010)

In considering major, publicly financed energy projects, the legislature directs that:

> In planning for future energy expenditures, public agencies shall give priority to projects and resources which are cost-effective. Priority for future bond sales to finance energy expenditures by public agencies shall be given: First, to conservation; second to renewable resources; third, to generating resources using waste heat or generating resources of high fuel-conversion efficiency; and fourth, to all other resources. (RCW 80.52.080)

A.2 Legislative Policy and Direction Specific to the Washington Utilities and Transportation Commission (WUTC)

The 1991 legislature appended the following finding to the section of law dealing with valuation of utility property:

> The legislature finds that the state is facing an energy shortage as growth occurs and that inadequate supplies of energy will cause harmful impacts on the entire range of state citizens. The legislature further finds that energy efficiency is the single most effective near term measure to lessen the risk of energy shortage. . . (RCW 80.04.250)
>
> The legislature finds and declares that the potential for meeting future energy needs through conservation measures ... may not be realized without incentives to public and private energy utilities. The legislature therefore finds and declares that actions and incentives by state government to promote conservation and the use of renewable resources would be of great

> benefit to the citizens of this state by encouraging efficient energy use and a reliable supply of energy based upon renewable energy resources." (RCW 80.28.024)

This section directed the Commission to adopt policies to encourage meeting or reducing energy demand through cogeneration, conservation, or renewable resources. The section authorized a 2% increment to be added to the allowed rate of return on common equity for investment in such projects between June 1980 and December 31, 1989. (RCW 80.28.025).

The legislature has also authorized the Commission to approve tariffed conservation services that require repayment by the customer of funds made available by the utility. The tariffed service may also provide for application of the payment obligation to successive property owners and for notification of same to the county auditor or recording officer. (RCW 80.28.065)

> (1) The Commission shall adopt a policy allowing an incentive rate of return on investment (a) for payments made under [the state's residential energy building code] (b) for programs that improve the efficiency of energy end-use if priority is given to senior citizens and low-income citizens in the course of carrying out such programs. The incentive rate of return on investments set forth in this subsection is established by adding an increment of two percent to the rate of return on common equity permitted on the company's other investments.
> (2) The Commission shall consider and may adopt a policy allowing an incentive rate of return on investment in additional programs to improve the efficiency of energy end use or other incentive policies to encourage utility investment in such programs.
> (3) The Commission shall consider and may adopt other policies to protect a company from a reduction of short-term earnings that may be a direct result of utility programs to increase the efficiency of energy use. These policies may include allowing a periodic rate adjustment for investments in end use efficiency or allowing changes in the price structure designed to produce additional new revenue. (RCW 80.28.260)

In 1994, the legislature provided for conservation bonding, one of the first "securitization" laws in the United States. Under this law, the Commission has authority to review, examine, and approve or reject a conservation service tariff filed by a company. A company may ask the Commission to determine that conservation investments are prudent, consistent with the conservation service tariff, and, therefore, bondable conservation investment. Bondable conservation investment must be included in ratebase and not later revalued. This section does not preclude the Commission from adopting other policies intended to provide incentives for and to encourage utility investment in conservation. (RCW 80.28.303; 1994 c 268, § 2). RCW 80.28.005 establishes the definitions for "bondable conservation investment",

"conservation bonds", and "conservation investment assets".

Apart from the above-listed statutes addressing conservation (and renewable) resources, chapter 80.28 RCW provides no similar treatment, or legislative direction for any other category of utility investment or resource.

A.3. Orders, Tariffs, and WUTC Policy History

Conservation received prominent mention by the Commission as early as 1974. During the early and mid 1970's, orders focused on rate design — generally approving or directing rate design that more closely approximate marginal cost. Decreasing block rates were gradually "flattened",and eventually moved to increasing block rates for residential customers. This had the effect of sending price signals that encourage more efficient electricity consumption.

Beginning in 1978, all three utilities were granted authority to offer no interest loans for conservation measures, and to place the cost of these programs in rate base and earn an investment on them. Since that time, all three utilities have run such programs, and all three have recovered their cost through a return on their investment in rate base. In rate cases through the 1980's the Commission approved the 2% increment to rate of return on common equity authorized by RCW 80.28.025.

Commission Policy Statements Concerning Conservation

Throughout the early- and mid-1970's the Commission promoted the importance of conservation as a means to slack the growing demand for electricity. In 1978, all three utilities were ordered to implement a 5% surcharge on the rates charged commercial and industrial customers during the winter of 1974/75. (U-74-4,U-74-8, U-73-57)

Orders in 1976 and 1977 for all three companies contained the following or similar language:

> "No allowance will attach to Respondent's expenditures designed to encourage increased use of electricity for any purpose. Allowance will be made only for such expenditures as are directly related to encouragement of conservation of electric use or for encouragement of diverting peak-period consumption to off-peak periods." (see, for example, U-76-18)

With the exception of an experimental program run by Puget in 1977, utility-run conservation programs did not begin until 1978. In response to the Federal mandated Residential Conservation Service, companies filed, and the Commission approved, programs in 1978. The 1978 order indicated that the Commission felt such programs were in the public interest, and that conservation programs with

utility payments that did not exceed the avoided cost of resources were cost-justified and did not constitute preferential treatment of program participants. (U-78-45, U-78-46, U-78-47)

In 1985, the Commission indicated in an Order to Puget that it, ". . . strongly expects that Puget will adopt a much more aggressive program. We encourage more active participation by the company in regional conservation efforts." (U-85-53 pp. 24). Further, it ordered Puget to develop a "least-cost" plan which carefully considered conservation options on a consistent basis with other electricity service supply alternatives.

In 1987, the Commission adopted its least-cost planning rule which states that, "Each electric utility regulated by the commission has the responsibility to meet its load with a least cost mix of generating resources and improvements in the efficient use of electricity. Therefore, a 'least cost plan' shall be developed by each electric utility in consultation with commission staff." A least cost plan" was defined as "a plan describing the mix of generating resources and improvements in the efficient use of electricity that will meet current and future needs at the lowest cost to the utility and its ratepayers", and contained:

> (a) A range of forecasts of future demand using methods that examine the impact of economic forces on the consumption of electricity and that address changes in the number, type, and efficiency of electrical end-uses.
> (b) An assessment of technically feasible improvements in the efficient use of electricity, including load management, as well as currently employed and new policies and programs needed to obtain the efficiency improvements.
> (c) An assessment of technically feasible generating technologies including renewable resources, cogeneration, power purchases from other utilities, and thermal resources (including the use of combustion turbines to utilize better the existing hydro system.)
> (d) A comparative evaluation of generating resources and improvements in the efficient use of electricity based on a consistent method, developed in consultation with commission staff, for calculating cost-effectiveness.
> (e) The integration of the demand forecasts and resource evaluations into a long-range (e.g., twenty-year) least cost plan describing the mix of resources that will meet current and future needs at the lowest cost to the utility and its ratepayers. (WAC 480-100-251)

In 1988, as part of the settlement agreement on the Pacific Power and Utah Power and Light merger, the Commission ordered that Pacific devote $280,000 per year to low income and other residential conservation programs. (U-87-1513)

In its 1991 Order establishing the Periodic Rate Adjustment Mechanism (PRAM)

experiment with Puget, the Commission stated that, “Rate making practices should align utilities= pursuit of profits with least-cost planning” (UE-901183-T). Later in 1991, the Commission approved a one-time incentive mechanism for Puget’s conservation program which resulted in 6.7 million dollars included in PRAM 2 (UE-920630)

In 1992 the Commission approved an experimental conservation (and fuel switching) program for WWP which provided for booking of “lost-margins” for conservation program savings, and the recovery of electricity “lost-margins” directly from fuel-conversion participants. (UE-920351)

In the merger of Puget Sound Power and Light and Washington Natural Gas to create Puget Sound Energy, the Commission reaffirmed its commitment to conservation:

> The Commission wants to emphasize its continuing commitment to the importance of public purpose issues raised by NCAC and NRDC and others in this proceeding. If these values are to be preserved, and the Commission believes they should, efforts should focus on finding methods, mechanisms and approaches that will be compatible with, and sustainable in, a more competitive industry. As competition comes to this industry, attention will focus on consumer values and on price. Methods to accomplish public purpose objectives and funding that rely on leveraging monopolies, and which assume that consumers will not be sensitive to price, will not be successful. The Commission does not take its responsibility to consider public purpose values and objectives lightly. However, our actions are confined by the limits of our statutory authority and by the realities of the emerging marketplace.
>
> The Commission is disappointed by the lack of constructive detail and substance about new methods for accomplishing public purpose objectives in the Regional Review’s recommendations, which seem to focus on finding the right dollar level rather than the right mechanism. We are prepared, and expect our Staff to be as well, to work with all parties to seek ways to preserve public purpose values and programs. We trust that mechanisms can be developed that will be consistent with changing market structures, and that will achieve these objectives in cost-effective and sustainable ways. (Docket Nos. UE-951270 and UE-960195, *Fourteenth Supplemental Order Accepting Stipulation; Approving Merger*)

<u>Commission Rate Treatment of Conservation:</u>

Since 1978, utilities have been permitted to accumulate investments in conservation (loans and grants to customers and related costs) in accordance with approved tariffed programs, and to include these cumulative investments in general rate

requests. Review of the orders in these rate cases indicates that controversy concerning conservation expenditures has been rare, and that the Commission has never disallowed conservation costs for any measures deemed to be consistent with an approved tariff.

Conservation advertising was raised as an issue in Puget rate cases in 1985, 1989, and 1992. In the 1989 and 1992 cases the Commission disallowed a portion of conservation advertising expenditures on the basis that they were generally promotional rather than integral to conservation programs. Puget's water heater efficiency programs were questioned in 1989. The Commission permitted their cost in ratebase (since they were incurred consistent with an approved tariffed program) while at the same time ordering that the program be changed to improve cost-effectiveness. In 1992, under Puget's PRAM 2 request, the cost-effectiveness of its weatherization and residential heat-pump programs were questioned. Again, the Commission declined to disallow costs for these programs, since they were incurred consistent with an existing tariff, but did order changes to the programs.

Conservation investments have been treated very favorably by both the Commission and its staff: accounting treatment which affords conservation expenditures the accumulation of AFUCE, no amortization until inclusion in rates, and an end-of-test-year conservation balance appears to treat conservation more favorably than other resource expenditures.

In 1995, the Commission approved the nation's first non-bypassable distribution charge - Washington Water Power's Energy Efficiency Tariff Rider. The Rider enables the utility to collect all the funds necessary to operate efficiency programs in the same year that they spend the funds, and thereby removes the need for the utility to finance the investments. This funding mechanism has proven to provide a stable source of funds for conservation programs. Companies around the nation have used this as a model to develop similar funding mechanisms.

A.4. State Legislation Affecting Renewables

In 1979, the legislature established financial incentives for developing electric power, mechanical power, or useful heat energy from cogeneration. Developers could credit 50 percent of their capital investment at a rate of 2 percent per year. The bill exempted the generation of power by a non-polluting, renewable energy source by individuals not otherwise engaged in power generation from all statutes and rules that regulate the generation of power (1979 ex. s., c 191)

The legislature established two financial incentives encouraging electric and gas utilities to invest in renewable resources for ten years, from June 1980 to January 1, 1990. The first incentive applied to investor owned utilities (IOUs), and directed the WUTC to allow a 2 percent higher rate of return on the common equity portion of a qualifying investment, defined as measures to improve end use efficiency,

cogeneration facilities, and facilities that produced energy from renewable resources. (RCW 80.28.0250) The second incentive, which applies to both IOUs and public utilities, allows utility tax deduction (from the gross income that is subject to the public utilities tax) for production cost of energy derived from cogeneration or renewable resources. (1980, c 149).

In 1982, the legislature increased the B&O tax credit rate to 3 percent per year and limited eligibility for the tax credit to $10 million per application for facilities built and operated by December 31, 1984. (1982 1st ex.s., c 2). Also in 1982, SB 3156 amended the life cycle cost procedures to encourage the use of renewable resource in new public buildings or facilities undergoing major renovations (RCW 39.35; 1982, c 159).

In June 1998, HB 2773, the Net Metering Bill became effective (1998, c 318). Among its other purposes is encouraging private investment in renewable energy resources. Utilities must offer to make net metering available to eligible customer-generators on a first-come, first-served basis until the cumulative generating capacity of net metering systems equals 0.1 percent of the utility's peak demand during 1996. The bill defines a net metering system as a facility for the production of electrical energy that uses solar, wind, or hydro power, has a generating capacity of no more than 25 kilowatts, is located in the customer's premises, operates in parallel with the electric utility's transmission and distribution facilities, and it is intended primarily to offset part or all of the customer's requirements for electricity. Customers operating their own systems will be billed for their net consumption.

Geothermal Energy

In 1979, the Washington Legislature declared geothermal resources to be distinct and separate from mineral or water resources. Geothermal resources were also declared to be the private property of the party holding title to the surface above the resource. (1979 ex.s., c 2). Because most of the potential for geothermal exploration in the state is in federal lands, in 1980, the legislature memorialized Congress (HJM 25) to enact comprehensive geothermal legislation.

By 1981, federal land was being leased, explored, and assessed for its potential. Under provisions of the Geothermal Stream Act of 1970, a portion of the rents and royalties received for federal geothermal leases was to be returned to the states. To take advantage of this situation, the legislature passed SHB 466 creating a geothermal account in the state general fund, allocated funds in the geothermal account and established that thirty percent would go to the Department of Natural Resources for exploration and assessment, thirty percent to the Washington State Energy Office for encouraging the development of geothermal energy, and forty percent to the county of origin for the mitigation impacts caused by the exploration, assessment, and development. These provisions ended June 30, 1991. (1981, c 158).

Solar Energy

The State Legislature exempted solar systems installed as improvements to real property from property taxes in 1977. These exemptions were for seven years after a claim was filed with the county assessor. Exemptions could not be renewed and no new claims could be filed after December 31, 1981. (1977 ex.s., c 364) The 1980 legislature repealed the solar tax exemption and, in its place, directed that buildings with unconventional heating, cooling, domestic water heating, or electrical systems should not be assessed at a higher valued than similar buildings with conventional systems. The 1987 legislature allowed this provision to sunset on December 31, 1987. (1980, c 155).

In 1979, the legislature declared that, "Athe potential economic and environmental benefits of solar energy are considered to be in the public interest; therefore, local governments are authorized to encourage and protect access to direct sunlight for solar energy systems." (1970 ex.s., c 170 § 1). City and county planning commissions were to investigate the potential for solar energy development and encouraged to include solar issues in local plans. This law also authorized private parties to negotiate easements and established that easements would be real property interests, subject to the same conveyancing and recording requirements as other easements.

A. 5 Major Federal Legislation Affecting the Electric Power Industry

The National Energy Act of 1978
This Act was a response to the OPEC ban of oil exports to the United States. The Act was signed into law in November of 1978 and includes five different statutes: the Public Utility Regulatory Policies Act of 1978 (PURPA), the Energy Tax Act, the National Energy Conservation Policy Act, the Powerplant and Industrial Fuel Use Act, and the Natural Gas Policy Act.. The general purpose of the act was to ensure sustained economic growth while permitting the economy time to make an orderly transition from the past era of inexpensive energy resources to a period of more costly energy. With increased awareness of energy issues, the primary goal of the National Energy Act was to reduce the Nation's dependence on foreign oil and its vulnerability to interruptions in energy supply.

The Public Utilities Regulatory Policy Act of 1978
PURPA was the most significant part of the National Energy Act of 1978 with regard to the structure of the electric power industry. PURPA was designed to encourage the efficient use of fossil fuels in electric power production. Specifically, Section 2 of the Act states:

> The Congress finds that the protection of the public health, safety, and welfare, the preservation of national security, and the proper exercise of congressional authority under the Constitution to regulate interstate commerce require—

> (1) a program providing for increased conservation of electric energy, increased efficiency in the use of facilities and resources by electric utilities, and equitable retail rates for electric customers. (PURPA; Public Law 95-617)

The Public Utilities Regulatory Policies Act (PURPA) encouraged the development of cogeneration, biomass-fired powerplants, and renewable generating resources. PURPA requires utilities to interconnect with qualifying cogenerators and small power producers (qualifying facilities, or QFs) located in their service territories, to purchase power at a price based on the utility's full avoided cost for energy and capacity, and to provide non-discriminatory rates for back-up services. PURPA also exempts small power producers from portions of the Federal Power Act, the Public Utility Holding Company Act, and certain state utility regulations.

Small power producers generate electricity from fuels other than oil and natural gas. They are automatically QF if they meet specific size, fuel use, and ownership criteria. General QF criteria require that the total power production capacity, together with the capacity of other facilities owned by the same person, using the same energy resource and located at the same site, cannot exceed 80 MW. Cogenerating QFs have no size limitation. In addition, no more than 50 percent of the equity interest in the facility can be held by an electric utility, an electric utility holding company, or a combination of them. For multifuel fired facilities, at least 75 percent of the total energy input must be from biomass, wastes, renewable resources, geothermal resources, or any combination of them. For cogeneration, PURPA requires the facility's useful power output plus one-half of its thermal output to be no less than 42.5 percent of the total energy input from natural gas and oil (WSEO, 1989).

The National Energy Conservation Policy Act of 1978 (Public Law 95-619)

Also part of the National Energy Act of 1978, this Act required utilities to provide residential consumers with free conservation services to encourage slower growth of electricity demand. It required all sectors of the economy to "significantly reduce the demand for nonrenewable energy resources such as oil and natural gas by implementing and maintaining effective conservation measures for the efficient use of these and other energy sources" (Sec 102, a, 3)

Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Public Law 96-901)

This Act created the Pacific Northwest Electric Power Conservation Council to coordinate operations of the BPA. The purpose was to encourage "conservation and efficiency in the use of electric power and...the development of regional plans and programs related to energy conservation" (Sec.2, 1a, 3a).

The Northwest Electric Power Planning and Conservation Act encouraged the development of renewable energy resources within the Pacific Northwest. The Northwest Power Planning Council's 1991 Plan identified the need to determine cost and availability of new cost-effective resources.

The Energy Policy Act of 1992 (Public Law 102-486)
This Act, often referred to as EPAct, was an omnibus energy bill with three primary policy goals: conserve energy supplied by electric utilities; make more efficient use of utilities' facilities and resources, and establish equitable rates for electric consumers. Among its provisions, EPAct:

- Calls for electric utilities to promote energy efficient products.
- Requires state governments to incorporate efficiency standards into building codes.
- Regulates energy efficiency standards for light fixtures, office equipment, windows, appliances, electric motors and plumbing products
- Promoted integrated resource planning (IRP) for regulated electric utilities.
- Stated a policy that demand-side investments should become as financially attractive to utilities as investments as supply-side investments.
- Called for investments in conservation and efficiency to be monitored and evaluated to determine that expected savings were, in fact, achieved.
- Consider the impact of the IRP and demand-side profitability standard standards on small businesses providing energy conservation and efficiency

The U.S. Energy Policy Act of 1992 (EPAct) extended a 10 percent federal income tax credit for production of solar and geothermal energy power, and offered operators or power projects based on energy crops and wind power a federal tax credit of 1.5 cents per kilowatt-hour generated during the first 10 years of the project. Subsidizing electric generation rather than capital investment creates more incentive for operators to lower their costs. City- and state-owned utilities, which are exempted from federal income taxes, receive a federal payment of 1.4 cents per kilowatt-hour for wind and closed-loop biomass projects (Flavin and Dunn, 1997).
In June of 1997, President Clinton announced the Million Solar Roofs Initiative aimed at installing 3,000 megawatts of solar energy systems on one million United States buildings by 2010. The initiative is intended to increase the demand for, and to lower the cost of solar photovoltaic systems, solar water heating systems and solar space heating systems, located on or near residential, commercial or industrial buildings. The Department of Energy is leading the initiative working with partners in the building and electric industries, local governments and non-governmental organizations to remove market barriers and strengthen local demand for solar technologies (www.nwppc.org)

A.6 A complete list of federal energy legislation would include the following laws:

Tennessee Valley Authority Act of 1933 (Public Law 73-17)
Public Utility Holding Company Act of 1935 (PUHCA) (Public law 74-333)
Federal Power Act of 1935 (Title II of PUHCA)
Rural Electrification Act of 1936 (Public Law 74-605)
Bonneville Project Act of 1937 (Public Law 75-329)
Reclamation Project Act of 1939 (Aug. 4, 1939, ch. 418, 53 Stat. 1187)
Flood Control Act of 1944 (Dec. 22, 1944, ch. 665, 58 Stat. 887)
First Deficiency Appropriation Act of 1949 ((Public Law 81-71)
Energy Supply and Environmental Coordination Act of 1974 (ESECA) (Public Law 93-319)
DOE Organization Act of 1977 (Public Law 95-91)
National Energy Act of 1978 (Public Law 95-617 - 95-621)
Public Utility Regulatory Policies Act of 1978 (PURPA) (Public Law 95-617)
Energy Tax Act of 1978 (ETA) (Public Law 95-618)
National Energy Conservation Policy Act of 1978 (Public Law 95-619)
Powerplant and Industrial Fuel Use Act of 1978 (Public Law 95-620)
Pacific Northwest Electric Power Planning and Conservation Act of 1980 (Public Law 96-501)
Economic Recovery Tax Act of 1981 (Public Law 97-34)
Electric Consumers Protection Act of 1986 (ECPA) (Public Law 99-495)
Tax Reform Act of 1986 (Public Law 99-509)
Clean Air Act Amendments of 1990 (CAAA) (Public Law 101-549)
Energy Policy Act of 1992 (EPACT) (Public Law 102-486)